Remarks

A. Claims

1. Allowability

Applicants acknowledge the finding that claims 2-28, 55-70, 80-97, and 102-118 are allowable.

2. Description of Claim Amendments

Claim 119 has been added and support for it resides, for example, in originally presented claim 28. Therefore, no new matter is added by this amendment.

3. Section 103

Claims 98-100 were, prior to the outstanding Office action, considered to be allowable so the Applicants were puzzled by the obviousness rejection over Wolf et al. Applicant's undersigned representative discussed the rejection with Examiner Mai on August 22, 2007, to better understand the reason(s) for the rejection. During that conversation, the undersigned explained that claims 98-100 require, *inter alia*, that the primary particles have an **average** size in a range of about 1 nanometer to about 100 nanometers. Wolf et al. does not disclose an **average** primary particle size within or even near the claimed range. Specifically, Wolf et al. disclose having "primary grains of a diameter of 100 to 400 nm (determined by visual evaluation of SEM micrographs)." Column 3, lines 25-28. Based on the foregoing, the undersigned noted that Wolf et al. cannot be fairly said to have disclosed primary particles having an average size in the range of about 1 nm to about 100 nm because if the particles are in the range of 100 to 400 nanometers the **average** size **cannot** be 100 nanometers, it must be significantly greater than 100 nm. This fact is supported by Wolf et al.'s **all** of the disclosures regarding the primary particle size. In particular, in Example 1 the average grain size by Fisher Sub-Sieve Sizer (FSSS) of the starting tantalum primary powder was 0.35 μm or 350 nm (column 5, line 63). The same primary particles were used in Examples 2 and 5. In Example 3 the average size was 0.34 μm or 340 nm (column 7, line 13) for the starting material. After being subjected to the disclosed Chemically Activated Agglomeration process, which included acid leaching that reduced the size, it was noted that the agglomerates were made up of primary particles having a size discernable by visual inspection of an SEM micrograph of "below 300 nm" (column 7, lines 55-56). Examples 4, 6, and 7 used the same starting tantalum powder as Example 3. Examples 9-11 used a tantalum powder produce according to the formulation of

Example 1 and it had an average size of 36 μm or 360 nm (column 12, line 34; column 13, lines 35; and column 14, lines 21-22). In Example 9 it was disclosed that after chemical agglomeration the size of the primary particles was visually assessed to be "approx. 200 nm" (column 13, lines 21-22). After explaining this to the Examiner, the Examiner requested that Applicants submit this argument in a written communication to the Office, which is this Response and Amendment F.

Applicants respectfully submit that, in view of the foregoing, the Office has not met its burden of establishing a *prima facie* case of obviousness. Specifically, section 2143 of the MPEP sets forth the three basic criteria to establish a prima facie case of obviousness. First, there must be some suggestion or motivation, either in the reference themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success for the proposed modification or combination. Third, the prior art reference(s) must teach or suggest all the claim limitations. Further, the teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, not in the applicant's disclosure. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991). First and foremost the Office failed set forth a *prima facie* case of obviousness because, as set forth above, Wolf et al. does not disclose, teach, or suggest each and every claim limitation. To reiterate, Wolf et al. do not disclose, teach, or suggest agglomerates "comprising a plurality of primary particles tightly agglomerated together, wherein said primary particles have an **average** size in a range of about 1 nanometer to about 100 nanometers" as required by claims 98-100 and 119. Contrary to the assertion by the Office, Wolf et al.'s disclosure of a size range of 100 to 400 nm does overlap the claimed average size range in claims 98-100 and 119. At most, Wolf et al. disclosed having an average primary particle as small as "approx. 200 nm" (column 13, lines 21-22), which is about two times a large as the maximum allowable average size in claims 98-100 and 119. Instead of satisfying the first element of the prima facie case, the Office **ignored** the "average" requirement of the claims 98-100 and 119.

Further, the Applicants submit that the relatively small average size of the primary particles of about 1 nm to about 100 nm in conjunction with the requirement that the plurality of primary particles be tightly agglomerated together result in a powder with surprisingly advantageous properties compared to those of previously known powders. Specifically, the powders of claims 98-100 and 119, *inter alia*, have a unique combination of relatively high surface area with ease of use resulting from the relatively high degree of flowability. See, e.g.,

page 7, lines 24-34 of the present application. This combination of properties would not have been recognized to the same degree as by the powder disclosed by Wolf et al. because, *inter alia*, the substantially larger average primary particle size would yield a substantially smaller surface area.

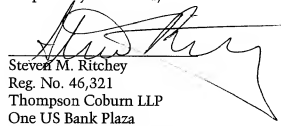
B. Information Disclosure Statement

Applicants are submitting herewith an Information Disclosure Statement pursuant to 37 C.F.R. §§ 1.97 and 1.98. In particular, this IDS is being submitted pursuant to §1.97(c)(1) and the Office is hereby authorize to deduct the necessary fee set forth in §1.17(p) from Deposit Account Number 20-0823. Additionally, the fee for the extension of time is to be deducted from the foregoing deposit account. It is believed that no additional fees are necessary for the new claim because of the fees already paid with respect to cancelled claims. Nevertheless, in the event that any other fees are necessary to prevent abandonment of this application, then and any such fees are hereby authorized to be charged to the foregoing deposit account.

C. Conclusion

In view of the foregoing, all of the pending rejections have been rendered moot and all the pending claims are allowable. Accordingly, Applicant respectfully submits that the application is in condition for allowance. Favorable action is respectfully requested.

Respectfully submitted,



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